



**STI
MOBILE
COMMUNICATIONS**

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Office of the Secretary
Federal Communications Commission
Washington, DC 20554

Before the
Federal Communications Commission
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

IN THE MATTER OF)

Replacement of Part 90 by Part 88 to)
Revise the Private Land Mobile Radio)
Services and Modify the Policies)
Governing Them.)

PR Docket No. 92-235

To: The Commission
COMMENTS OF STI Mobile Communications
2390 S. Kalamath St. #D
Denver, CO 80223

April 1, 1993

STI Mobile Communications is a sales and service organization providing Land Mobile and Microwave equipment, facilities and service to the Greater Metropolitan Denver area and other Front Range cities from Colorado Springs to the Wyoming border.

I SUMMARY

The regulations proposed in the new Part 88 of the Commission's Rules & Regulations presents many potential problems to our business and to the operation of the many communications systems used by Public Safety and Industrial customers.

As a sales organization, Part 88 presents an almost infinite source of new equipment sales, however the net result to the end users of this equipment will be degraded communications at vastly increased expense.

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List A B C D E

A large portion of our business is related to Public Safety Communications which will be very adversely affected by the proposed rule changes. Public Safety Communications must be totally reliable at all times and in all locations. The limitations imposed by Part 88 will greatly reduce communications reliability

The proposed continuation of wide band paging operation on 25 kHz channels does not promote industry's involvement in producing paging equipment that will function on the proposed narrow band channels. Since the majority of the paging will continue to take place on the wide band channels, it will not provide the equipment manufacturers with the incentive to produce narrow band paging equipment for operation on systems such as Public Safety that require paging operations on their voice channels. This will result in a major expense to the Public Safety Sector for special narrow band pagers.

COSTS TO MEET INITIAL TECHNICAL REQUIREMENTS:

The Commission estimates costs of "nothing to \$100 per transmitter" to meet the technical requirements. This cost is totally unrealistic. The reduction in transmitter deviation and power will result in the need for major modification of the associated receiving equipment to provide proper audio recovery and increased selectivity to avoid adjacent channel interference. The design and construction of much of the newer equipment will not allow the modifications and adjustments as proposed. Therefore, It will be necessary for the owners of this newer equipment to purchase new equipment or discontinue use of their communications systems.

The economic impact on Industrial and Public Safety radio users will be overwhelming. Many existing radio users will be forced to abandon their communications systems entirely because of the excessive modification costs.

II SPECIFIC COMMENTS BY SECTION NUMBER

88.91 LOADING DATA REPORTS:

88.91(a) Should be extended to allow trunked operation in the 150-174 and 450-512 MHz bands.

88.119 LICENSE TERM:

88.119(d) Innovative Shared Use should be deleted from this section entirely (see comments under 88.997).

88.131 TIME BY WHICH STATIONS MUST BE PLACED IN OPERATION:

88.131(b) Include 150-174 and 450-512 MHz bands.

88.215 SMR ONLY FREQUENCIES ABOVE 800 mHz:

Extreme elevation sites are not limited to the California and Washington areas. Many mountain top multi-user transmitter sites exist in Colorado along the Front Range. These sites provide coverage to the major population centers of Colorado and their coverage areas overlap by as much as 50 miles. These sites need to be afforded the same protection given the California and Washington sites listed in this section.

88.231 CHANNEL PAIRING:

88.231(a) Mobile relay and trunking systems in the 150-174 mHz band will require paired channels to avoid the confusion that now exists in that band because there are no assigned frequency pairs at this time. This has resulted in major interference and coordination problems.

88.287 LOADING STANDARDS FOR RURAL TRUNKED SYSTEMS 806-824/851-869 mHz:

Based On the Major Metropolitan Area Table in Section 88.1601, Denver Colorado should be included in the list of recognized urban areas (number 19 of 100).

88.305 FREQUENCY COORDINATION REQUIREMENTS:

88.305(D)(1) & (13) Should be deleted from this section (see comments under 88.997).

88.321 SHARED USE OF RADIO SYSTEMS:

88.321(a) Delete "and by non-commercial licensees selling excess capacity". All selling of excess capacity should be done as SMR type of operation (see page 2 paragraph 3 of comments).

88.429 POWER AND ANTENNA HEIGHTS LIMITS:

The power limitations as listed in Table C-3 for elevations over 295 ft. HAAT are totally unrealistic for reliable communications. Many Public Safety and Industrial users rely on single high locations to provide coverage for their areas of operation. Much of the terrain in the Rocky Mountain Region makes the use of multiple sites impractical. Multi site systems as proposed by the Commission will require a large increase in the use of microwave and other link frequencies to accomplish the same results as a single frequency high elevation - high power site. The requirement for the use of additional link frequencies does not produce spectrum efficiency.

The Commission has proposed the use of multi-site systems to provide better coverage with lower power. This proposal will raise many environmental concerns by requiring numerous antenna sites within an operating area to provide the same coverage now afforded by a single high elevation-high power site. Acquisition of additional sites will be hindered or totally rejected by most County Governments in the Rocky Mountain Region because of environmental and visual impact. These concerns will virtually eliminate new site construction along the Front Range or the Interstate 70 corridor.

88.473 MOBILE RELAY STATIONS:

88.473(a)(1) Mobile relay operation in the 150-174 MHz band should be allowed in the Public Safety Radio Service regardless of exclusivity on the channels.

88.997 INNOVATIVE SHARED USE OPERATION:

Due to the nature of the proposed service, these operations more closely resemble "Common Carrier" services rather than Private Radio Service operations. The fact that their specified areas of operation correspond to the Bell Operating Companies Regional Areas supports this assumption.

Operators of Innovative Shared Use Systems should be regulated under Part 21 of the Commission's Rules & Regulations and furthermore, they should be restricted from providing equipment to the end users of the systems. The channels for these systems should not be interspersed with the other Land Mobile Service frequencies (especially adjacent to the Public Safety channels). Due to the undefined nature of the emissions to be used, the potential interference factor at co-located sites could be a major factor to the operation of the Public Safety systems.

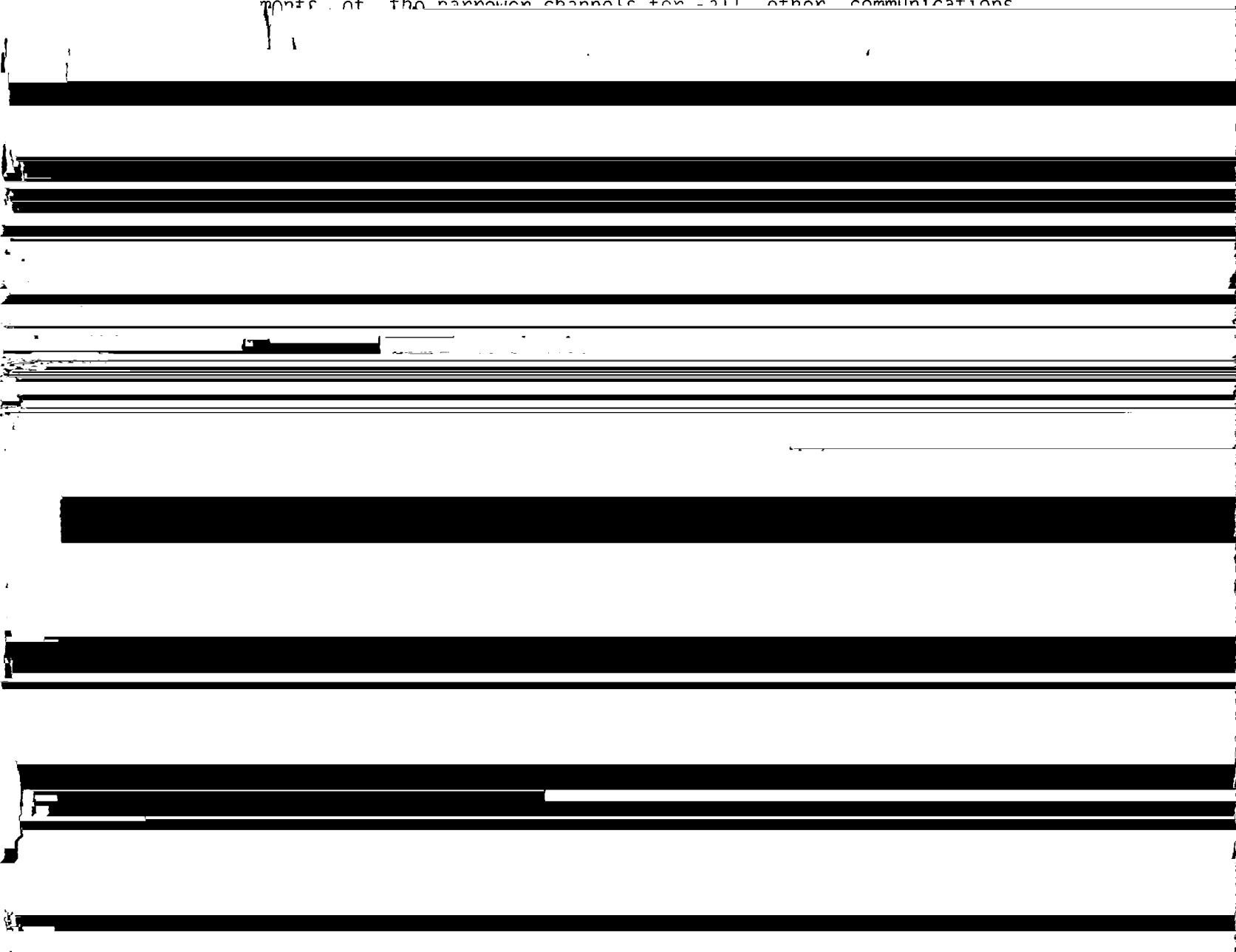
88.1029 MUTUAL AID OPERATIONS:

The Mutual Aid channels as proposed do not meet the needs of the individual type of Public Safety users. Police systems require channels for base to base as well as mobile to mobile and mobile to base Mutual Aid frequencies. These channels need to be universal throughout the networks to operate properly. The Fire Radio users need several channels to be used primarily on a mobile to mobile basis. As proposed, these channels are shared between all Public Safety Services which will cause many potential interference problems to all users of these channels. Specific use (Fire, Police, Rescue etc.) channels need to be established for each type of operation.

The number of radios required to monitor all of the proposed frequencies and bands proposed for Mutual Aid communications will present operational and equipment problems at large dispatch centers.

88.1061 PAGING CHANNEL BANDWIDTHS:

Paging operations should not be accomplished on wider bandwidths than those authorized for the other proposed services. Many paging operations must take place on the normal voice communications channels of the system users (Public Safety Systems provide paging services as part of their normal operations). It will not be practical to manufacture pagers that will operate on both the narrow proposed channels and the 25 kHz channels for wide band paging. If the communications industry is to meet the requirements of the narrower channels for all other communications



III CONCLUSIONS

Part 88 is not practical in its present form. The availability of equipment to meet the technical requirements within the time-frame proposed is questionable if not impossible. The power limitations will not allow reliable communications for large area systems.

Some of the proposed services are not consistent with other Private Radio operations.

Planned migration with interim compatibility is mandatory to prevent total loss of communications during transition.

Continuation of wideband paging on certain channels is not consistent with the purpose of narrowbanding under part 88.

The specific needs of Public Safety users have not been properly addressed and Emergency communications will be degraded as a result of the proposed regulations.

Many worthwhile concepts are included in the proposed Part 88, however it appears that the Commission's eagerness to proceed has clouded their prospective regarding the practical aspects of the actual implementation of the Regulations.

The expense to the Commission to Regulate, Enforce and Protect the proposed Rules & Regulations from non-compliant existing users may well be beyond the budgetary scope of the FCC.

Respectfully Submitted By,

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